

# Press Release



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Covestro at CES 2019

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## Customized applications with polycarbonate

### Illuminated interface of thermal wellness wearable

At CES 2019 – the global stage for the latest consumer product technologies from January 8-11 in Las Vegas – Covestro will demonstrate how, as a materials innovation partner, it helps bring next-gen technologies to market. The company with its booth at Eureka Park, Sands, Hall G, booth no. 52934, is believed to be the only materials supplier exhibiting at CES 2019.

Covestro is highlighting applications utilizing its polycarbonates and polycarbonate blends tailored to electronics, IT and communications applications. These materials offer a [balanced combination of properties](#) including high flowability, stiffness, toughness, heat resistance, flame retardance and good aesthetics.

“Successfully taking a product from concept to commercialization requires being able to juggle multiple factors,” explains Joel Matsco, Senior Marketing Manager Polycarbonates – Electronics and Appliance, Covestro LLC. “We collaborate early on with our customers, helping them to overcome their product design, engineering and materials challenges. This approach accelerates innovation, which is particularly critical given the rapid electronics product life cycle.”

### Control how you feel

A highlight development presented at CES 2019 is called Embr Wave – an intelligent bracelet that allows people to hack the way they feel temperature. According to manufacturer [Embr Labs](#), the bracelet’s scientifically developed waveforms precisely stimulate a person’s thermoreceptors, leveraging the body’s natural systems to make the wearer feel cooler or warmer by up to 5 degrees in just a few minutes.



The technology is based on a breakthrough physiological insight: Warming or cooling specific parts of the human body can make someone feel more comfortable without changing his or her core body temperature. This is based on the fact that thermoreceptor stimulation – e.g. at the wrist – triggers the specific regions of the brain that control thermoregulation and pleasure.

Embr Labs developed the product through years of iterative prototyping and customer testing. When it came time for the production design, the company wanted to use a frosted light pipe with LEDs as the primary user interface. “We turned to Covestro to help select the right material and optimize the design for optical performance,” explains Embr Labs cofounder Sam Shames.

#### **Optimal polycarbonate grade**

Based on the requirements, Embr Labs chose Makrolon<sup>®</sup> 2407 polycarbonate, a UV-stabilized grade that offers proven performance for electronics, IT and telecommunications applications. For the Embr Wave, diffusers and optical brighteners were compounded into the resin to achieve the desired visual effect.

According to Joel Matsco from Covestro LLC, this application follows the company’s foresight into the use of light as information. “Instead of using text or symbols, color and light are simple, minimalist – yet effective – means to convey information to the user,” he explains. “Covestro has deep expertise in helping brand and electronics manufacturers design with light.”

Please visit our landing page to obtain more information about all our activities at CES 2019: <https://www.lp.covestro.com/ces2019>

#### **About Covestro:**

With 2017 sales of EUR 14.1 billion, Covestro is among the world’s largest polymer companies. Business activities are focused on the manufacture of high-tech polymer materials and the development of innovative solutions for products used in many areas of daily life. The main segments served are the automotive, construction, wood processing and furniture, and electrical and electronics industries. Other sectors include sports and leisure, cosmetics, health and the chemical industry itself. Covestro has 30 production sites worldwide and employs approximately 16,200 people (calculated as full-time equivalents) at the end of 2017.

#### **About Embr Labs:**

Embr Labs is a “feelable” technology company focused on wellness that harnesses the power of cutting-edge technology to improve thermal comfort. The company’s flagship product, the Embr Wave, is an intelligent bracelet that allows people to control how cold or hot they feel. It leverages precisely



engineered algorithms to deliver temperature sensation in waves, triggering the human body's natural response to temperature change to help people feel more comfortable. Embr Labs was founded by four MIT scientists and is backed by investors including Bose Ventures and Intel Capital. For more information, please visit **embrlabs.com**.

*This press release is available for download from the Covestro press server at [www.covestro.com](http://www.covestro.com). A photo is available there for download as well. Please acknowledge the source of any pictures used.*

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**Forward-looking statements**

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